

NOTICE TO BIDDERS
YORKTOWN WATER DEPARTMENT

PURCHASE OF A 2023 VACUUM HYDRO-EXCAVATOR
YORKTOWN WATER DEPARTMENT

NOTICE IS HERE GIVEN that sealed bids will be received by the Town Clerk, Town of Yorktown, Westchester County, NY until 11:00 A.M. on Thursday, December 29, 2022 at the Town Hall, 363 Underhill Avenue, Yorktown Heights, N.Y. 10598 for the Purchase of a 2023 Vacuum Hydro-Excavator for the Yorktown Water Department.

The Bidder assumes the risk of any delay in the mail or in the handling of the mail by the employees of the Town of Yorktown. Whether sent by mail or means of personal delivery, the Bidder assumes the responsibility for having the bids in at the time and the place specified above. All bids are to be returned to the Town Clerk, 363 Underhill Avenue, Yorktown Heights, N.Y. 10598, marked: "Bid: Purchase of a 2023 Vacuum Hydro-Excavator for the Yorktown Water Department."

Bid specifications may be obtained at the office of the Town Clerk in said Town Hall or downloaded from the Town's website at www.yorktownny.org or on BidNet Direct at www.bidnetdirect.com.

The Town reserves the right to reject any and all bids and to accept that bid which is deemed most favorable to the interests of the Town of Yorktown.

DIANA L. QUAST, TOWN CLERK
MASTER MUNICIPAL CLERK
TOWN OF YORKTOWN

Town of Yorktown
363 Underhill Avenue
Yorktown Heights, New York 10598

Yorktown
Water Department

Bid#2-2023

New Combination Single Engine Hydro Excavation Machine
with Positive Displacement Vacuum System Mounted
on a Heavy Duty Truck Chassis or Equivalent.

INVITATION TO BID

The Town of Yorktown Water Department is seeking to purchase a new Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or equivalent.

Sealed bid proposals, plainly marked "Bid #02-2023 Vacuum Truck" on the outside of the envelope, addressed to the Town Clerk's Office, Town Hall, 363 Underhill Avenue, Yorktown Heights, New York 10598, will be accepted until 11:00 a.m. on December 29, 2022 at which time all bids will be publicly opened and read aloud.

This bid is available on the Town's website at www.yorktownny.org or on BidNet Direct at www.bidnetdirect.com or by contacting the Town Clerk's office at 914-962-5722 x209.

Questions may be directed to the Town Clerk at dquast@yorktownny.org. Addenda to this proposal, if any, including written answers to questions, will be posted on the Town of Yorktown website under Town Clerk, under Bids/RFP's.

The Water Department reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the Town.

INSTRUCTIONS TO BIDDERS

I. Preparation of Bid Proposal

- A. The Bidder shall submit its proposal upon the form furnished by the Town (attached). Prices shall be given in both words and figures.
- B. Corrections made to amounts or information requested on the bid form should be made by crossing out the error and entering the new price or information above or below it. The correction must be initialed. In case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern.
- C. The bidder's proposal must be signed by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his/her name and post office address must be shown, by a partnership the name and post office address if each partnership member must be shown; as a joint venture, the name and post office address of each must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles, and business addresses of the President, Secretary, and Treasurer.
- D. All words, figures, corrections shall be in ink or typed. All signatures shall be in ink.
- E. Addenda to this proposal, if any, including written answers to questions, will be posted on the Town of Yorktown website at https://www.yorktownny.org/bids_rfps under the project heading. Addenda and updates will NOT be sent directly to firms. Bidders submitting a proposal should check the web site for addenda and updates after the release date. Bidders should print out, sign and return addenda with the proposal. Failure to do so may result in disqualification.

II. Delivery of Bid Proposals

When sent by mail, the sealed proposal shall be addressed to the owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened. Faxed and emailed bid proposals are not acceptable.

III. Withdrawal of Bid Proposals

A bidder will be permitted to withdraw his/her proposal unopened after it has been deposited if such request is received in writing prior to the time specified for opening the proposals.

IV. Public Opening of Bid Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

V. Irregular Proposals and Disqualification of Bidders

Bid proposals that are irregular may be rejected. Irregular bid proposals include the following:

- A. Failure to use the bid form provided or alteration of the form.
- B. Unauthorized additions, conditional or alternated bids, incomplete bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
- C. The addition of any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

Bidders may be disqualified and the bid proposal rejected for the following reasons:

- A. More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- B. Evidence of collusion among bidders;
- C. Failure to submit all required information requested in bid specifications;
- D. Bidder is not qualified or able to provide the services or product(s) described in the bid specifications; or
- E. Disqualification is in the best interest of the Town of Yorktown.

AWARD

I. Consideration of Proposals and Award

After the proposals are opened and read, bid results will be available to the public. In case of discrepancy between the prices written in words and those written figures, the prices written in words shall govern.

Within 30 calendar days after the opening of proposals, if an award is made, it will be made to the lowest, responsible, qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by mail at the address indicated on the proposal.

The award shall not be considered official until such time that a purchase order, fully executed contract or an award letter has been issued by the Department Head. No presumption of award shall be made by the bidder until such documents are in hand. Verbal notification of award is not considered official. Any action by the bidder to assume otherwise is done so at his/her own risk and the Town will not be held liable for any expense incurred by a bidder that has not received an official award.

II. Reservation of Rights

The Town reserves the right to cancel the award at any time before final notification of the successful bidder without any liability against the Town. The Highway Superintendent reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the Town.

Bid Specifications

One New Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis:

The intent of this specification is to procure One New Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or Equivalent:

The following are minimum acceptable specifications for One New Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis . Any exceptions shall be noted in the columns below.

Yorktown Water District
2023 Vacuum Hydro-Excavator
Bid Document

Vehicle Summary

	Unit	Chassis	
Model:	T880 Series Conventional	Fr Axle Load (lbs):	20000
Type:	FULL TRUCK	Rr Axle Load (lbs):	46000
Description 1:	tandem JDC HXXTPA push	G.C.W. (lbs):	78350
Description 2:	TANDEM PUSHR JDC HXXTPA		
	Application	Road Conditions:	
Intended Serv.:	Local pickup & delivery: Vehicles which	Class A (Highway)	85
Commodity:	Other bulk goods.	Class B (Hwy/Mtn)	10
		Class C (Off-Hwy)	5
		Class D (Off-Road)	0
	Body	Maximum Grade:	6
Type:	Tank.	Wheelbase (in):	308
Length (ft):	24	Overhang (in):	70
Height (ft):	13.5	Fr Axle to BOC (in):	74
Max Laden Weight (lbs):	4000		
		Cab to Axle (in):	234
		Cab to EOF (in):	304
	Trailer	Overall Comb. Length (in):	426.5
No. of Trailer Axles:	0		
Type:			
Length (ft):	0	Special Req	
Height (ft):	0	U.S. Domestic registry, 50-state.	
Kingpin Inset (in):	0		
Corner Radius (in):	0		
	Restrictions		
Length (ft):	120		
Width (in):	102		
Height (ft):	13.5		

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Sales Code	Std/ Opt	Description
Model		
0000810	S	T880 Series Conventional
0070060	S	T880
0072001	O	Chassis operation will include stationary application used in lower 48 states [US only]. Stationary operation is defined as running the engine under load while stationary at a substantial fraction of engine gross horsepower (60% or greater) for an extended period of time (longer than 5 - 10 minutes).
0080055	O	CARB Idle Emissions Reduction - Cummins
0090000	S	Non-Sleeper w/rear axle capacity less than 59K.
Engine & Equipment		
0130307	O	X15 500V 500@2000 1850@950 2021 with Inte Brake, Productivity Series N09200 C399 120...Standard Maximum Speed Limit N09260 C121 64....Maximum Accelerator Pedal Ve N09440 C234 NO....Engine Protection Shutdown (N09460 C231 NO....Gear Down Protection (C231) N09580 C133 5.....Timer Setting (C133) N09680 C233 NO....Idle Shutdown Manual Overrul N09480 C132 1400..Max PTO Speed (C132) N09300 C128 64....Maximum Cruise Speed (C128) N09500 C239 NO....Cruise Control Auto Resume (N09520 C238 NO....Auto Engine Brake in Cruise N09780 C190 80....High Ambient Temperature Thr N09740 C188 40....Low Ambient Temperature Thre N09720 C382 YES...Enable Hot Ambient Automatic N09600 C396 YES...Enable Impending Shutdown Wa N09620 C397 60....Timer For Impending Shutdown N09560 C225 YES...Enable Idle Shutdown Park Br N09420 C333 0.....Reserve Speed Limit Offset (N09380 C334 0.....Maximum Cycle Distance (C334 N09360 C400 252...Reserve Speed Function Reset N09400 C401 10....Maximum Active Distance (C40 N09220 C402 0.....Expiration Distance (C402) N09540 C395 0.....Expiration Distance (C395) N09240 C209 120...Hard Maximum Speed Limit (C2 N09760 C189 60....Intermediate Ambient Tempera N09640 C206 35....Engine Load Threshold (C206)
1000151	S	PremierSpec
1000244	O	Gearing Analysis: Balance power/economy blend results.
1000256	O	Customer's Typical Operating Spd: 64 MPH

Sales Code	Std/ Opt	Description
1000684	O	Effective VSL Setting NA
1000857	S	Engine Idle Shutdown Timer Enabled
000859	O	Enable EIST Ambient Temp Override
1000891	O	Eff EIST NA Expiration Miles
1002080	O	Air compressor: Cummins 18.7 CFM, Naturally Aspirated for Cummins X15 engines
1051200	S	Air Cleaner: composite firewall mounted PACCAR or Cummins engines
1105220	O	Fan Hub: Horton 2-Speed for X15
1123555	S	Cooling module: 1330 square inches. Includes aluminum radiator core, aluminum charge air cooler, translucent surge tank and washer bottle, silicone hoses, and extended life coolant.
1160105	O	Radiator winterfront.
1160208	O	Radiator bug screen mounted between hood & grille.
1247234	S	EXH: 2021 RH Under DPF/SCR with RH SOC Vertical tailpipe. Not 2.1m high roof sleepers
1290148	O	Tailpipe: 5 in. single 48 in. 45 degree curved. For use with any Exhaust other than SCR Independent.
1321109	O	Fuel Filter:PACCAR Standard Service Interval Fuel/Water Separator. 2017 and Later Emissions
1321205	S	Run Aid:Fuel Heat *For Fuel Filter
1321305	S	Start Aid:12V Heat *For Fuel Filter
1504005	O	Immersion block heater 120V 1500W w/plug under door on C500, T660, T800 & W900.
1816260	S	Alternator: PACCAR 160 amp, brush type
1821275	O	Batteries: 3 AGM GP31 THR (925) 2775 CCA. For T680, T880, or W990 in cab battery box only.
1836103	O	PACCAR Premium 12V Starter W/ Cummins X15 Engines PACCAR 12 volt electrical system. With centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system with circuit protection circuits number & color coded.
1840065	S	12V low voltage disconnect for starter battery protection.
1901003	O	Jump start terminals frame mounted BOC or sleeper.
1901018	O	Remote PTO/Throttle, 12-Pln, 250K, Back of Cab OR Back of Sleeper, J1939, Remote Control Provision
1901078	O	J1939 HARNESS EXTENSION UNDER HOOD AT FIREWALL,

Sales Code	Std/ Opt	Description
DRIVER SIDE		
Transmission & Clutch		
2016158	O	Transmission: Allison 4500RDS 6-speed w/o retarder, w/PTO provision. 5th generation. For vocational applications. Includes shift control, transmission oil temperature gauge, oil level sensor & heat exchanger. Transynd transmission fluid is standard on all Allison 1000, 2000, 3000 & 4000 series transmissions.
2406005	O	45 degree yokes on interaxle drivelines.
2406467	O	Driveline: 3 SPL250SF 2 centerbearing REQ 3500062 I/A D/L W/tandems
2410018	O	Torque converter included w/Allison Transmission.
2410154	O	Allison lever control, center console mounted. The lever shifter is for use with Allison Transmissions and is located in the dash cup holder assembly.
2410204	O	Delete Allison Fuel Sense
2410311	O	Decline Allison Neutral at Stop Stand-Alone
2410430	U	ALLISON GEN 5 RDS PACKAGE 150 Narr ALLISON GEN 5 RDS PACKAGE 150
2429358	O	Rear transmission support springs for transmission PTO applications are required to ensure that engine flywheel housings are not overloaded when transmission PTO's are installed.
2429378	O	Customer installed transmission PTO in the LH Mounted position (8 o'clock) for Allison 3000 & 4000 transmissions.
Front Axle & Equipment		
2506181	O	Dana Spicer D2000 Front Axle rated 20K standard track.
2621078	O	Front Brakes: 22K Bendix ES S-cam 16.5x6 in.
2659047	O	Front dustshield: for drum brakes: all front axles.
2690035	O	Front Brake Drum: 22,000 lbs. 16-1/2x6 in. Cast.
2702022	O	Front Hubs Iron hub pilot 22,000 lbs. 10 Bolt 16.5x6in. or 7in. or air disc brakes. 10 Bolt, 11-1/4 in. bolt circle. Consider Wheelguards (5850002) with aluminum wheels.
2741970	S	ConMet PreSet Plus Hub package; front axle.
2750001	S	Hubcap: front vented.
2765001	O	Front Auto Slack Adjuster.

Sales Code	Std/ Opt	Description
2866020	S	Front Springs: Taperleaf 20K w/ shock absorbers w/ maintenance-free elastomer spring pin bushings. Standard with rubber pins except for C500 which has threaded pins. Not available on W900L, W900B use 2866021.
2893642	O	Dual power steering gear: 16-22K TRW THP60 Not for use on T3.
2899336	S	Power Steering Cooler: Radiator Mounted Air-to-Oil
Rear Axle & Equipment		
3144183	O	Dual Dana Spicer D46-172HP rear axle rated at 46K, w/ 16mm housing and 2.06in. shaft diameter. Includes pump. Tandem rear axles.
3200430	O	Rear Axle Ratio - 4.30.
3334004	S	Dual Rear Brakes 16-1/2x7 in. to 46K; Bendix ES-extended service S-cam.
3392005	S	Dual Rear Brake Drums: cast.
3407050	S	Dual Rear Hubs: Aluminum hub pilot 46K 11-1/4 in. bolt circle.
3441972	S	ConMet PreSet Plus Hub package; dual rear axle.
3465002	S	Dual Rear axle automatic slack adjusters.
3485207	S	Spring Brake: 3030 long stroke dual 30 square inches travel. Helps keep brakes in adjustment longer.
3490047	O	Dustshields for drum brakes: all rear axles.
3495226	O	Bendix 4S/4M anti-lock brake system.
3500057	O	Interaxle driveline 1 Dana SPL170XL
3532194	O	Wheel Differential Lock for Dana Spicer axles D40-170(P)/D46-170(H)(P)(WT) forward rear axle & rear rear axle.
3573111	O	Separate switch for dual axles: differential lock or crosslock.
3747461	O	Rear suspension: Tandem Hendrickson RT463 46K, 54 in. axle spacing. Steel beams & barpin bushing. 7.19 in. saddle height. Unladen Height: 12.5 in. Laden Height: 11.2 in.
3808119	O	1 Steerable Pusher: Watson Chalin Tru Track 13.5K SL1190SSR Alumilite; includes axle.
3820036	O	1 Steerable Pusher Brakes: Bendix Non-RSD 15x4 Use with 13.5K axle.
3820523	O	1 Steerable Pusher brake drum 15x4 for use with 13.5K axle.
3821121	O	1 Steerable pusher hubs aluminum hub pilot for use with 13.5K axle.
825047	O	Steerable pusher: optional dustshields.

Sales Code	Std/ Opt	Description
3828334	O	Pusher or Tag: gauge/ switch dash-mounted, gauge LH driver's seat, regulator under driver door.
3830145	O	Delete standard heavy-duty air springs for rear suspension.
3841054	O	1st Pusher location: 54 in. from c/l Forward tandem axle or single rear axle.

Tires & Wheels

4077533	S	Front tires: Bridgestone M864 425/65R22.5 20PR All Position, On/Off Highway, Wide-base tire.
4277488	O	Rear tires: Bridgestone M770 11R22.5 14PR. 42.2 in. diameter, drive. 19.6 in. SLR. Code is priced per pair of tires.
4781058	O	1 Steerable Pusher: 2 Bridgestone R213 Ecopia 295/75R 22.5 14PR
4900008	O	Rear Tire Quantity: 8
5045218	O	Front Wheel: Alcoa 82462 22.5x12.25 aluminum, with LM One [TM] finish, hub-pilot mount. 11000lb. maximum rating. 5.80 in. offset. Air disc brake compatible.
5243363	O	Rear Wheel: Alcoa 88267 22.5x8.25 aluminum with Level One [TM] finish, hub-pilot mount. 7400 lb. maximum rating. Air disc brake compatible. Code is priced per pair of wheels.
5781363	O	1 Steerable Pusher Wheel: 2 Alcoa 88267 22.5x8.25; aluminum with LM One [TM] finish. Hub-pilot mount. 7400lb. maximum rating.
5850040	O	Wheelguards: all axles.
5859010	O	Single Front Axle: 2 wheels Dura-Bright Buffed. Dura-Bright outboard surface of aluminum wheels.
5859012	O	Dual Rear Axle Wheels: 4 wheels Dura-Bright Buffed. Dura-Bright outboard surface of outer dual or single aluminum wheels.
5859031	O	1 Pusher: 2 Wheels Dura-Bright Buffed. Dura-Bright outboard surface of outboard wheels mounted same as front axle. For use on 1 steerable or 1 non-steerable pusher axles w/ single wheel.
5900008	O	Rear Wheel/Rim Quantity: 8

Frame & Equipment

6056600	O	Frame Rails: 10-3/4 x 3-1/2 x 3/8in. Steel 337in. to 416 in. Truck frame weight is 3.48 lb.-in. per pair of rails. Section modulus is 17.80, RBM is 2,132,000 in-lbs per rail. Frame rail availability may be restricted based upon application, axle/suspension capacity, fifth wheel setting, or component/dimensional specifications. The results of the engineering review may result in a change to the requested frame rail. If a change is required Kenworth Application Engineering will advise the dealer of the appropriate material specification for a substitute rail.
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Sales Code	Std/ Opt	Description
6141600	O	Full Steel Insert: for 10-5/8 in. or 10-3/4 in. Steel 337 in. to 416 in. or 2nd insert for 11-5/8 in. steel frame. Adds 1,149,000 in-lb to main rail RBM. Truck insert weight is 2.05 lb.-in. per pair of rails. Full frame insert length is equal to wheelbase plus rear frame cutoff plus dimension forward of front axle by model: T660, T680, T800, T880 = 21.26 in.; C500B = bumper setting minus 0.79 in.; W900B = 5.27 in., W900L = 1.50 in., W900S = 3.27 in.; T440/T470 50 in. bumper setting = 21.26 in., T470 73 in. bumper setting = 72.3 in.
6301610	O	Bumper: Stainless steel clad straight aluminum channel. Requires bumper setting code.
6319485	S	48.5 in. Bumper setting. Requires a bumper code.
6324025	O	Front tow hook: Center mounted, cast. Requires iron front drive brackets.
6390001	O	Steel shackle links.
6390312	O	Brackets: Iron front spring drive. Included with front spring capacity of 16,000 lbs or greater; code not required.
6391205	O	Custom Frame Layout: 5-9 chassis CFL C/M: SAME AS CH 207994 CFL A/D: UNDER RH RAIL FORWARD OF DEFTANK AS FAR FORWARD AS POSSIBLE SAME AS 207994 CFL BBX: S/C 1901003 LOCATE JUMP START TERMINALS PER VACTOR DRWG 1550085SAREVA CFL DEF: PLACE DIRECTLY BEHIND AIR DRYER ON PASSENGER SIDE AS FAR FORWARD AS POSS. SAME AS 207994
6405000	O	In-cab steel battery box: under rider seat or in stand alone box. Requires appropriate AGM battery code, which varies by model, and appropriate rider seat code be selected prior to entering the workscreen. Includes 1 battery disconnect switch.
6409906	O	In-Cab battery box location: Under rider seat.
6451090	S	T470,C5, T6, T8 non-polished DPF/SCR or CNG cover diamond plate w/ step. For use w/ 2010 or later exhaust systems. For T8, use extended length non-polished battery box on opposite rail to match the length of under cab components. End plates will be painted standard black frame color.
6721102	S	Rear mudflap arms: Betts B-25 standard-duty, straight. Includes B1732 mounting brackets as standard.
6722000	S	Rear mudflap shields: White plastic antisail w/ Kenworth logo.
6742009	S	Square end-of-frame w/o crossmember; non-towing.
6790003	O	Special frame drill: dealer to provide drawing with dimensions and revision level. Acceptable hole diameters range from 10.2 mm to 40.4 mm. Preferred file format is .pdf. Not for use for rear suspension, fifth wheel or other published frame drilling code. Does not replace clear frame space requests or custom frame layout.
Fuel Tanks & Equip		
7510150	O	Fuel Tank: 150 US gallon 28.5in. aluminum under

Sales Code	Std/ Opt	Description
		replace. Class 8 fuel tank includes an anti-siphon device on the filler neck. A third tank support is required with this tank.
7722153	S	Small round DEF tank, 14 gallons. The DEF tank will be located on the side you specified. If you have specific configuration or body builder concerns, please utilize the Custom Frame Layout option. Standard capacity is calculated by fuel capacity of the vehicle and will accommodate two diesel fill-ups for every DEF fill-up. For 1:1 DEF fuel fill ratio, add 7889204.
7840038	O	Polished cover for 1 DEF tank any size.
7880009	O	Mechanical anti-roll channel for one tank.
7881300	O	Welded-in fitting w/ gasket & cover plate for mounting customer-installed fuel tank heater.
7889061	O	Polished stainless steel tank straps for 1 tank.
7889204	O	DEF to fuel fill ratio between 1:1 and 2:1.
7889245	S	Anti-siphon device in fuel tank filler neck. For any number of fuel tanks.
7889604	S	DEF tank location is LH.
7920150	O	Location: 150 gal fuel tank LH under cab

Cab & Equipment

8025301	S	Cab: Stamped aluminum cab with panoramic curved glass windshield. Standard with stamped aluminum doors, heavy duty in-swinging hinges, and triple sealed doors. Manufactured using self-piercing rivets and structural adhesive. Includes LED exterior marker lights and turn signals.
8090604	O	Hood: T880 Standard Length With Mechanically Fastened Fenders. 122.6 inch BBC.
8108011	S	Cab HVAC - Day Cab and 40in Sleeper System With Defrost, A/C, and 48,000 BTU/hr Heater. Includes automatic temperature control with one touch defrost operation and dash mounted cab temperature and solar intensity sensors. Pleated fresh air filter and cabin recirculation air filter standard. The Kenworth HVAC system is designed to provide optimal heating and cooling in all operating environments without need for additional insulation. Cab HVAC without sleeper heater AC is available with 40in sleeper.
8190138	O	Shutoff Valves to Isolate Primary Heater Remote mounted on frame under cab.
8201047	S	Kenworth Smartwheel: 18 in. Non-Leather With Integrated Radio and Cruise Controls.
8201051	O	Column Mtd Retarder Control, RH Side Use with Manual & Allison Transmissions Only.
8201200	S	Adjustable telescoping tilt steering column.
8203060	O	5 sets of keys. Replaces standard 2 sets of keys.

Sales Code	Std/ Opt	Description
8205012	O	Off-highway dash switch: For ABS system. Includes indicator light.
8205177	O	Dash Switch: 1st Allison-mntd PTO. Electric switch and wiring are factory-installed to control the 1st Allison Trans mounted PTO.
8221160	O	Gauge: Engine Oil Temperature Gauge With Integral warning light. The NavPlus HD unit includes a virtual engine oil temperature gauge.
8222404	S	GAU: DD VIRTUAL GAUGE - OIL TEMP ENG
8222413	S	GAU: DD VIRTUAL GAUGE - MANIFOLD PRESSURE BOOST
8222414	S	GAU: DD VIRTUAL GAUGE - ENGINE PERCENT TORQUE
8282027	S	MAIN INSTRUMENT PACKAGE: 15" Digital Display. Includes Speedometer, Tachometer, Primary Air Pressure, Secondary Air Pressure, Fuel Level #1, DEF Level, DPF Filter Status, Fuel Economy, Oil Pressure, Coolant Temp, OAT and Voltmeter, and Air Application.
8282107	O	Large flat panel on dash For customer-installed controls. Reduces gauge count by 6.
8300008	S	Interior color: Slate Gray
8330102	S	Interior package: Vantage daycab Includes durable headliner and vinyl sidewalls with geometric patterned trim and anodized aluminum accents throughout. Convenient overhead storage cubbies, full size glove box, two center console cupholders, and large door pad map pocket. Standard LH/RH power windows, electric door locks, interior LED lighting, nighttime-friendly red ambient lighting for dash and footwell, and door mounted courtesy light. Includes two standard 12V power outlets. Driver sunvisor includes strap.
8390634	S	Rubber floormat
8410206	S	Driver Seat: GT701 HB with Cloth w/ Vinyl material. The GT701 is standard with a single air bag, scissor linkage seat suspension. It includes a single chamber lumbar support, 10in Fore/Aft adjustment, 7in Up/Down adjustment, 2.5in pan extension, 51 degree seat back recline, and 16 degree full seat tilt. Includes 3-point matchin seat belts. DR seat standard w/ dual armrests.
8480109	O	Rider Seat: GT100 Battery/Utility Box IB With Vinyl Material. The GT100 seats are standard with fixed base. Includes 3- oint matchin seat belts.
8490181	O	Seat Color: Black
8601432	O	Kenworth Radio DEA710 AM/FM/WB/USB, Bluetooth
8698974	O	Base Level Audio System - Daycab:High Performance Door Speakers.
8700197	S	Turn Signal: Non-Self Cancelling

Sales Code	Std/ Opt	Description
8700283	S	LH and RH Trip Ledge Rain Deflectors
8700406	O	Stainless steel permit panel on cab, driver side only
8800372	O	Grabhandle: LH, Exterior, Side of Cab - Ergonomic Grab Handle Mounted To The Left Hand Exterior Of The Cab For Entry and Exit.
8800402	S	Dual Cab Interior Grabhandles: A Pillar Mounted Dash Wrap and B Pillar Mounted Grabhandles
8832113	S	Kenworth Daylite Door with standard LH/RH electric door locks and LH/RH electric window controls.
8841618	O	Dual rectangular air horn 23 in. LH & RH top of roof. Includes air horn covers.
8850139	S	Look-Down, Pass. Door, Black 11x6
8865003	O	Aero Mirror: Dual Kenworth Chrome Aero. Motorized Heated Mirrors, 7in X 13in With Chrome Mirror Shell and Black Mirror Arms. Also Includes LH/RH Heated 6in X 7in Convex Mirrors. Mirror Brackets Set For 8-1/2 ft Load Width. Mirror Controls Located On Driver Side Door Pad.
871446	S	Rear cab stationary window 19in x 36in
8890101	S	One-piece bonded-in windshield with curved glass. Standard.
8890135	S	Exterior stainless steel sunvisor.
8890300	O	Fender close-out: Below headlamp, behind bumper. *NOT available with 3-piece bumper.
8890348	O	Wheelwell Fender Extension: 4.5 inches
8890876	S	Kenworth Cab/Sleeper Air Suspension.
8891013	O	Extreme Temperature Insulation: Daycab Additional cab side wall insulation with improved material properties over standard insulation package.

Lights & Instruments

9010553	S	Headlamps: SAE Dual Halogen Complex Reflector
9022137	S	Marker Lights: Five, rectangular, LED
9030016	O	Turn Signal Lights: Flush mounted LED mounted at top of fender wheel arc
9030052	S	LED Stop,Turn,Tail: With Two LED Backup Lights and With An LED License Plate.
9090000	O	Daytime Running Lamps.
9090039	S	Marker Lights: Interrupter Switch.

Sales Code	Std/ Opt	Description
		Included in Turn Signal For All Models Except T3. The T3 Switch Is In The Dash.
9090049	S	Omit Brake Light with Engine Brake. Can only be selected when chassis also has engine brake. Cannot be used with options to delete engine brake.
9090115	O	Reflectors: Two Midframe
9090126	O	Electric Backup Alarm: Meets SAE J994 & OSHA requirements.
9090302	O	Junction Box: Mounted Behind Cab or Sleeper Not Mounted at End of Frame.
9090849	O	Polyswitches replacing fuses. Switch will automatically reset after removal of excess load.

Air Equipment

9101218	S	Air Dryer: Bendix AD-HF Puraguard Heated
9108001	S	Moisture ejection valve w/ pull cable drain.
9140020	S	Nylon air tubing in frame & cab, excluding hoses subject to excessive heat or flexing.
9140249	O	Locate air dryer under RH rail BOC. This code requires the use of a custom frame layout code.

Extended Warranty

9200002	O	Base Warranty - Severe Service 12 months / 50,000 miles / 80,000 km.
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Miscellaneous

9409852	O	GHG Secondary Manufacturer: Does Not Apply
9490003	O	Additional lead time required for off highway & /or specialty component truck.
9490206	O	Warning triangle reflector kit: Shipped loose. Kit consists of 3 triangles in plastic carrying case. Not floor mounted.
490408	O	One 5 lb. dry chemical type fire extinguisher mounted inboard of rider seat. Class ABC.
491659	S	VMUX Architecture

Promotions

Paint

9700000	O	Paint color number(s).
		N9702 A - L0006 WHITE N9720 FRAME N0001 BLACK
9943004	O	Bumper Unpainted

Sales Code	Std/ Opt	Description	\$ List	Weight
9943050	O	Day Cab Standard Paint	0	0
9944820	S	1 - Color Paint - Day Cab Color will be White if no other color is specified.	0	0
9965510	S	Base coat/clear coat. The Kenworth Color Selector contains additional instructions, as well as information on Kenworth paint guidelines and surface finish applications. Kenworth is standard with Dupont Imron Elite paint.	0	0

WARRANTY:

Standard Warranty: Cummins engine 36 months/250K
Standard Warranty for Aftertreatment: 36 months/350K
Standard Warranty for Allison: 4500 RDS/36 months/Unlimited miles

EXTENDED WARRANTY:

Extended Warranty Cummins Engine: 6 year/250K
Extended Warranty Aftertreatment: 6 year/250K
Extended Warranty for Allison: 7 year/Unlimited miles

Detailed Specifications

for
HXX

(Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System
Mounted on a Heavy Duty Truck Chassis)

		COMPLY	
		YES	NO
1.0	INTENT		
1.01	The intent of this specification is to provide for the purchase or lease of one (1) new and unused single-engine hydro excavator used for safely loosening and removing dirt from buried utility structures and buried pipes. The unit shall consist of a hydraulically driven high pressure water pump and equipped with a self-contained water supply as the source for the water pump system. The body dump, water pump and vacuum controls shall be accessible on the curbside of the vehicle. The module is to be truck mounted on a chassis as described either in this specification or attached as an addendum. Please indicate all exceptions to this specification in an attached addendum with complete descriptions and explanations. (Submit horsepower requirements of all systems on unit)		
1.02	This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality, performance and overall cost of ownership against which all equipment bid will be compared. In comparing proposals, consideration will be given to life cycle cost guarantees whereby bidder shall provide all pertinent information to evaluate long-term cost. Contract will be awarded for the product which best serves the interests of Yorktown Water Department considering long-term maintenance cost, parts availability, product support and service cost as well as guaranteed buyback value of bidder's equipment. Yorktown Water Department reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. Award shall be to the bidder showing most favorable life cycle costing while meeting the requirements of these specifications.		
2.0	EQUIVALENT PRODUCT		
2.01	Bids will be accepted for consideration on any make or model that is equal or superior to the equipment specified. Decisions of equivalency will be at the sole interpretation of Yorktown Water Department.		
2.02	Bidder shall demonstrate a reasonable likeness of the equipment being offered within a reasonable time of request. Equipment demonstrated shall be equipped with all accessories and components required in this specification to ascertain equivalence.		
2.03	A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's		

COMPLY			
	brochures of the proposed unit are to be submitted with the proposal.		
2.04	For quality assurance, the hydro excavator shall be produced in a facility with ISO 9001:2008 certification.		
2.05	For environmental considerations, the hydro excavator shall be produced in a facility with ISO 14001:2004 certification.		
3.0	BIDDER REFERENCES		
3.01	To ensure adequate local availability of parts and competent service from experienced suppliers, bids are preferred from local vendors who have sold and serviced at least 30 units of same manufacturer within service area of Yorktown Water Department is preferred and should include contacts with phone numbers.		
4.0	SERVICE AND SUPPORT		
4.01	Location of warranty service center and amount of inventory shall be noted which may be verified and inspected.		
4.02	Amount of OEM parts at this facility: \$		
4.03	Years of servicing equipment being bid: Years		
4.04	Number of factory qualified service technician:		
5.0	GENERAL		
5.01	The specification herein states the minimum requirements of Yorktown Water Department. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. Any bid not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable the Yorktown Water Department to make a reasonable determination of compliance to the specification will be considered "non-responsive" and grounds for rejection.		
6.0	SUBFRAME		
6.01	The equipment shall be of modular design consisting of a water tank system and drive system.		
6.02	A sub frame shall be fabricated to the exact dimensions of the truck chassis for mounting of modular components.		
6.03	All components of the module shall attach to the sub frame and not directly to the chassis.		
6.04	Sub frame shall be designed to ASME standards for maximum applied loads, chassis frame movement and even distribution of weight to the chassis and suspension.		
6.05	Sub frame shall be continuous and uninterrupted from back of cab to end of frame.		
7.0	DEBRIS BODY		
7.01	Efficiency of air movement through debris body will be measured for minimal restriction as measured by vacuum pressure gauge while operating blower at full speed. Pressure drop throughout entire system (from 8" hose inlet to blower inlet) including specified filtration and blower protection devices shall be no greater than 3" hg as measured at blower.		
7.02	The body shall be cylindrical having a minimum useable capacity of 12		

COMPLY			
	cubic yards.		
7.03	The debris storage body shall be constructed with a minimum 1/4" corrosion and abrasion resistant Ex-Ten steel.		
7.04	The debris storage body shall have a minimum yield point of 50,000 PSI and a minimum tensile strength of 70,000 PSI.		
7.05	The debris body shall be rib reinforced to meet 30" Hg minimum vacuum level.		
7.06	Industrial style rear debris body door shall be flat, and shall open and close hydraulically by cylinders mounted at the top of the body. Door shall open 50 degrees from the fully closed position. Door shall be unlocked, opened, closed, and locked by a failsafe hydraulically activated sequential positive locking system, cam operated by a single hydraulic cylinder, with all controls located behind truck cab, forward of the debris body, so operator is not subject to debris when dumping.		
7.07	Rear door locking system shall be designed such that no hydraulic components are located internal of the debris body to prevent debris contamination and excessive wear of hydraulic components		
7.08	Manual locks will not be permitted		
7.09	Dual top mounted hydraulic cylinders shall permit the operator to raise and lower the rear door		
7.11	The 6" knife valve to be located at the 3 o'clock position on the rear door		
7.12	The debris body shall be equipped with a mechanical load level indicator to show when the body is loaded to capacity		
7.13	Raising the body to a 50 angle, utilizing a forward mounted, double acting, hydraulic dump cylinder will dump the debris body.		
7.14	Body shall have a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal. Adjustable for periodic compensation of door seal wear.		
7.15	The rear door neoprene seal shall rise with the rear door removing the seal from the debris path for maximum life.		
7.16	For optimal particulate separation, vacuum shall be drawn from separate ports in the top of the debris body.		
7.17	Dual 10" stainless steel ball floats; cage shall be located in the tank outlet to the vacuum source to automatically stop the airflow from, the body.		
7.18	The float balls shall close when a debris body full load condition exists.		
7.19	The float balls shall be equipped with a perforated plastic float ball screen protecting the float balls from debris.		
7.21	Vertical (cyclone) centrifugal separators shall be installed inline between the debris body and the air mover. The separator shall include large fallout chamber cleanout door. Cyclones shall be properly sized for maximum system air velocity.		
7.22	Cyclone Drain Valve		
7.23	A curb-side folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.23	A street-side folding 3-pipe rack shall be provided, constructed of steel		

COMPLY

	tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.23	A rear door mounted folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.24	A horizontally mounted micro-strainer shall be provided prior to the blower inlet, with a removable filter screen and bottom drain port.		
7.25	A splash shield shall be mounted around the lower 60% of door opening to direct liquid and debris away from the chassis. Shield shall be minimum 10" deep bolted assembly with no openings.		
7.26	A lubrication manifold system shall be provided to allow ground level greasing of boom lift and swing cylinders, float level indicator, top rear door hinges and debris body hoist cylinder pins.		
7.27	An 8" inspection port in top of the debris body with ladder and platform access shall be provided.		
7.28	An air curtain mounted in the mid-point of the debris body shall be provided to provide maximum material separation in the debris body.		
7.29	Electric vibrator on heavy structural channel on under-side of body with thermal overload protection shall be provided. Vibrator controls must be designed with proper rest intervals to prevent over use and failure.		
8.0	WATER TANKS		
8.01	The water tanks shall be manufactured from a non-corrosive material to prevent rust yet still provide for maximum strength.		
8.02	The water tanks shall be adequately vented and connected to provide complete filling.		
8.03	The water tanks shall be totally separate from the debris tanks and provide no structural support.		
8.04	The water tanks shall share no common walls with the debris tanks to prevent corrosion and excessive fatigue.		
8.05	The water tanks shall come equipped with an anti-siphon device and 25' of hydrant fill hose and fittings.		
8.06	2" Y-Strainer With 25' Fill Hose shall be provided.		
8.07	The water tanks shall carry a 5-year warranty against corrosion or cracking.		
8.08	Fresh water shall enter the tanks through an in line 6" air gap, all aluminum covered anti-siphon device.		
8.09	Water level shall be displayed via a five-light system with incremental display between empty and full.		
8.10	Water tank shall be drained through a 3" ball valve. Valve should have a handle extension to provide easy and clear access.		
8.11	For stability safety, the water tank shall not elevate with debris body during dump cycle.		
8.12	A low water alarm shall alert operator when water storage has 150 gallons remaining.		
8.13	An air purge system utilizing the chassis air system shall be provided to		

COMPLY				
	assist displacing of residual water out of the high-pressure water system. System shall utilize the truck chassis air compressor to fill a 30-gallon auxiliary air storage air storage chamber with pressure gauge and pressure protection valves to isolate the holding tank from the chassis compressor. System shall be equipped with ball valve and all necessary high-pressure piping hoses, couplings and controls.			
8.14	Water tank must be a certified metered capacity of 1200 gallons. Certification shall be necessary upon delivery.			
8.15	3/4" HDPE material shall be used for construction of the dual cell water tank			
9.0	VACUUM/VACUUM DRIVE SYSTEM			
9.01	Vacuum shall be provided by a positive displacement rotary tri-lobe type blower driven via chassis engine and heavy-duty split transfer case direct to the blower.			
9.02	Interlock safety system shall prevent drive axle from engaging.			
9.03	Hydro excavator unit shall be equipped with a shift protection system preventing blower engagement/disengagement with input shaft at speed to prevent transfer case destruction			
9.04	The vacuum system provided must utilize 28" Hg minimum positive displacement blower.			
9.05	The positive displacement blower shall be driven via truck chassis engine in combination with a chassis mounted heavy duty transfer case.			
9.06	An LED screen displaying equipment performance information including but not limited to chassis engine rpm, blower rpm, water pump hours, hydraulic oil temp, water temp, and blower temperature.			
9.07	The positive displacement blower is to be Hibon 8702, capable of 5250 CFM @ 0" Hg. (2950 CFM @ 27" Hg.)			
9.08	The positive displacement blower shall be matched with ultra-quiet intake and exhaust silencers.			
9.09	The system shall have a cyclonic separator with 12" cleanout door. Must be at ground level for safe access.			
9.10	The filter house shall contain a removable & washable filter element. Must be ground level for safe access.			
9.11	The system shall have an 8" air operated vacuum relief valve controllable from the control panel, wireless remote, and wired pendant. Relief valve shall be properly sized to fully disable vacuum.			
9.12	The vacuum system shall include a 4" manually operated vacuum relief valve to allow fresh air to enter when required. This 4" relief valve shall be mounted prior to the blower inlet.			
10.0	VACUUM BOOM SYSTEM			
10.01	All vacuum pipes shall be connected to vacuum pick up tubes and extension pipes by over-center quick clamps to join the aluminum flanges on pipes.			
10.02	One (1) quick clamp for each pipe supplied shall be provided.			
10.03	The boom must extend out a total of 7 feet from the collapsed position.			
10.04	Vacuum system shall have a minimum of 8-inch clear opening from boom			

COMPLY			
	hose to blower.		
10.05	The boom shall be mounted at the rear portion of the debris body with a minimum 320-degree rotation providing full coverage of the potential working area.		
10.06	The boom shall be controlled via a load sense, electric-over-hydraulic hydraulic system.		
10.07	The boom shall be powered hydraulically up, down, left, right, extend, and retract.		
10.09	All inlet hose and tubing shall have a minimum 8" inside diameter.		
11.0	WATER PUMP AND DRIVE		
11.01	The rated design capacity of the high-pressure water pump is 10 GPM at 3000 psi.		
11.02	The high-pressure water pump shall be a hydraulically operated triplex piston pump.		
11.03	The pump shall have the capability of being turned on or off remotely from the truck via the wireless remote, eliminating the need for the operator to return to the truck to engage or disengage the water system.		
11.04	The water pump must have the ability to fully vary the pressure and the flow while maintaining full vacuum performance.		
11.05	The water pump shall be able to deliver the correct flow without having to change components of the pump in the field.		
11.06	The handgun hose provided must have an operating pressure rating of 3,500 psi and a burst pressure of 14,500 psi. It must have a 3/8" inside diameter, be 75 feet in length and be mounted on a spring retractable hose reel		
11.07	The handgun hose and water pump shall be mounted in a heated cabinet for protection against cold weather environment.		
11.09	Water flow through the digging lance shall be controlled via a manual hand gun trigger directly connected to the digging lance.		
11.10	Water system shall utilize a centrifugal charge pump prior to the triplex pump inlet to ensure proper inlet pressure at all water tank levels preventing pump cavitation and excessive pump wear.		
11.11	Water pump shall be mounted in a location which provides a fully flooded inlet condition of water. Water pump shall not be required to draw water uphill.		
12.0	SAFETY EQUIPMENT		
12.01	(1) Emergency Flare Kit		
12.02	(1) 5# Fire Extinguisher.		
12.03	7" dash monitor, 1-camera system shall be provided. A rear back-up color camera with 130 deg viewing angle shall be provided. Camera to have automatic activation when the unit is switched to reverse.		
12.04	For additional safety during vacuum excavation, a "jet-ski" style wrist strap and tether system shall be supplied. The tether shall attach to the digging lance while allowing unimpeded movement of the digging lance during normal operation. Should the digging lance be dropped by the operator, a magnetic connection on the wrist strap will be disengaged		

COMPLY			
	triggering an emergency stop condition - disabling water flow at a minimum. The wrist strap shall feature an ingress protection (IP) rating of 67.		
14.0	CONTROL PANEL		
14.01	The hydro excavator shall have all controls conveniently located on the curbside of the unit.		
14.02	The control panel shall be inside an aluminum box for protection from weather.		
14.03	The control panel shall include the following:		
14.04	* - Chassis tachometer with hour-meter,		
14.05	* - 5 light electronic water level gauge		
14.06	* - Circuit breakers		
14.07	* - Engine throttle control		
14.08	* - Water pump on/off control		
14.09	* - Blower RPM Gauge		
14.10	* - Electronic display of hydraulic oil temperature		
14.11	* - Electronic display of water temperature		
14.12	* - Electronic display of blower temperature		
14.13	* - Water pump hour meter		
14.14	* - Blower hour meter		
14.15	* - Vacuum enable/disable		
14.16	* - Full boom control via rocker switches		
14.17	* - Easily accessible and visible emergency stop button to full disable vacuum and hydraulics bringing the unit to a safe condition		
14.18	* - PTO mode indicator		
14.19	Separate remote push button pendant control with 75' cable/with a vacuum relief.		
15.0	ELECTRICAL & SAFETY LIGHTING		
15.01	The entire system shall be vapor sealed to eliminate moisture damage, "Nema-4" type or equal.		
15.02	All electrical connections shall be void of exposed wires or terminals nor should they be painted. Paint process shall be completed prior to installation of wiring.		
15.03	All wiring shall be color-coded and function stamped for ease of troubleshooting. For safety and ease of troubleshooting, all electrical circuits shall be protected by circuit breakers.		
15.04	All light bulbs shall be shock mounted to eliminate bulb failure.		
15.05	All other lights required by State and Federal Laws.		
15.06	Electrical system shall be of solid-state design, specifically designed for mobile applications. Industrial style control systems will not be accepted.		
15.07	All chassis electrical integration to be completed via OEM type connectors. No wire-splices will be allowed		
15.08	Throttle control to be completed electronically utilizing the chassis J1939 CAN system.		
15.09	A manufactured wiring harness specifically designed for the unit shall be		

COMPLY			
	utilized. Wiring harness shall have a protective snake skin wrapping for durability. All wiring shall be offset from potential rub points with coated P-clamps.		
15.10	Electrical components shall utilize their own, dedicated enclosure and will be isolated from the water system cabinet.		
15.11	Wireless remote must have a minimum ingress protection (IP) rating of 67		
15.12	Wireless remote shall feature two-way communication with visual display of water pressure, vacuum level, and fuel level at a minimum.		
15.13	Handheld, Pistol Grip LED Spot light with rechargeable Lithium Ion battery.		
15.14	Operator station work lights shall be provided		
15.15	(2) Boom work lights shall be provided.		
15.16	(2) Rear door work lights shall be provided		
15.17	LED Lights, Clearance, Back-Up, Stop, Tail & Turn shall be provided.		
15.18	Unit to utilize a non-destructive emergency stop method. E-Stops will open vacuum relief, throttle chassis engine to idle, turn off water pump, disable hydraulics. E-Stops located at all HMI points (control panel, wireless remote, optional corded pendant).		
15.19	Multi-Function Wireless Remote: Includes complete boom control, E-Stop, Throttle Up/Down, Pump On/Off, Pump Multi-Flow Up/Down, Vacuum Enable/Disable.		
15.20	A LED split arrow board shall be installed at the rear of the unit to provide directional control for approaching traffic.		
15.21	A beacon light shall be installed at the rear of the unit.		
15.22	A beacon light shall be installed at the front of the module.		
16.0	HYDRAULIC SYSTEM		
16.01	The hydraulic reservoir shall have a 67-gallon capacity with strainers on all suction lines.		
16.02	The reservoir shall have an oil level sight gauge and an inspection hatch for maintenance.		
16.03	The reservoir shall be a totally modular component and easily removed from its storage area.		
16.04	A 10-micron spin on type hydraulic filter shall be installed.		
16.05	Hydraulic shut off valves shall be provided at the suction, return and filter lines to permit servicing of the hydraulic system.		
16.06	Hydraulic system shall be designed such that there are no hydraulic lines or components mounted in the internal air flow chambers (debris body, duct work, etc.) for reliability.		
16.07	Hydraulic system shall be protected with an air-to-hydraulic heat exchanger properly sized for system cooling. Heat exchange to be mounted in a proper location for proper air flow and maximum efficiency.		
16.08	Hydraulic system to be powered via a power take off (PTO) mounted directly to the transmission.		
16.09	ISO 46 Hydraulic Oil		
17.0	WATER HEATER		

COMPLY			
17.01	A 400,000 BTU diesel fired water heater shall be supplied		
18.0	VACUUM TOOLS AND ACCESSORIES		
18.01	The basic vacuum tube package shall include the following:		
18.02	(2) 8" x 5' aluminum pipe		
18.03	(1) 8" x 7' aluminum pipe		
18.04	(1) 8" x 7' aluminum fluidizer tube w/a rubber tube		
18.05	(4) 8" quick clamps		
18.06	The basic water pipe package shall include the following:		
18.07	1-Digging package consisting of:		
19.0	CHASSIS EQUIPMENT AND STORAGE		
19.01	Two (2) front tow hooks shall be provided.		
19.02	Two (2) rear tow hooks shall be provided.		
19.03	An electronic back-up alarm shall be included on the vehicle.		
19.04	Mud-flaps shall be located at the rear wheels.		
19.05	(1) 50" x 30" x 30" Aluminum Water Pump Cabinet Mounted curbside shall be provided.		
19.06	This cabinet shall be located on the right side of the vehicle and utilized to house the water pump and retractable handgun reel system.		
19.07	The water pump cabinet shall be insulated with a minimum R15 rating. The cabinet shall also be heated utilizing chassis engine glycol through an air-to-water heat exchanger.		
19.08	(1) 48" x 24" x 12" Weather tight aluminum cabinet for controls.		
19.09	(1) 104" x 24" x 22" Aluminum Toolbox shall be provided curbside in lieu of tool tray		
19.10	(1) 18" x 48" x 24" Aluminum Toolbox shall be provided curbside aft of rear tire		
19.11	(1) 18" x 48" x 24" Aluminum Toolbox shall be provided streetside aft of rear tire		
19.1	(1) 30"w x 54.5"h x 30"d Aluminum Vertical Toolbox shall be provided driver side with coat hanger hooks.		
20.0	EQUIPMENT PROTECTION		
20.01	Unit shall be equipment with blower overheat protection. If blower exceeds OEM recommended operating temperatures, the emergency stop system will be activated preventing blower damage.		
20.02	Unit shall be equipment with blower over-speed protection. If blower exceeds OEM recommended RPMs, the emergency stop system will be activated preventing blower damage.		
20.03	Unit shall be equipment with hydraulic overheat protection. If hydraulic oil exceeds OEM recommended operating temperatures, the emergency stop system will be activated preventing blower damage.		
20.04	For additional safety, the hydro excavator shall be designed to prevent simultaneous multiple control input.		
21.0	PAINT		
21.01	All metal surfaces shall be shot or sand blasted prior to painting.		
21.02	All surfaces shall be cleaned by phosphate saline wash process prior to		

COMPLY			
	painting.		
21.03	The module shall have a minimum of two- and one-half mil of suitable primer coat applied.		
21.04	The module shall have minimum of two- and one-half mil finish paint applied.		
21.05	All module components shall be painted prior to assembly process.		
21.06	All hose and fittings, as well as electrical wires and connections shall not be painted.		
21.07	The unit is to be painted with a polyurethane enamel top coat on a dried and sanded primer base coat.		
21.08	All vacuum components mounted to chassis shall be painted blue i.e. Atlas blue from the Ford Motor Company.		

1	21HXXPD12	HXX PD, 27" Vacuum, 12 yrd Debris, 1200 Gal Water	
1	H160STD	Mandatory Transfer case Mounting Charge	
1	H002STD	DigRight Technology	
1	H015STD	Hibon 8702 Blower	
1	H011STD	Aluminum Fenders	
1	H012STD	Mud Flaps	
1	H016STD	Sealed Electrical System	
1	H017STD	Dual Cyclone Separators	
1	H020STD	Double Acting Dump Hoist	
1	H022STD	2" Y-Strainer w/25' Fill Hose	
1	H026STD	Exten Steel Debris Body	
1	H040STD	Electronic Low Water Indicator	
1	H047STD	Flat Rear Door w/Hyd Locks/Lift	
1	H048STD	8" ID Vacuum System	
1	H049STD	Multi Flow System	
1	H050STD	Handgun Kit 5gpm/10gpm	
1	H051STD	75' Retractable Handgun Reel	
1	H054STDA	7ft Extendable Boom, 320 deg. Rotation with Removable Turret Box	
1	H055STD	Vacuum Relief	
1	H056STD	Electronic Back-Up Alarm	
1	H057STD	3" Water Tank Drain	
1	H058STD	2-1/2" Cam-Lok Water Fill Fittings	
1	H059STD	Control Panel Boom Control	
1	H060STD	Circuit Breakers	
1	H061STD	Tow Hooks -- Rear	
1	H063STD	Hydrant Wrench/Tool Package	
1	H066STD	10 GPM/3000 PSI Water System	
1	H067STD	Debris Body Deflectors	
1	H068STD	S.S. Float Ball Shut Off	
1	H069STD	Manual hand pump for boom hydraulic override	
1	H080STD	Electronic Low Water Indicator	
1	H101STD	1200 Gallon Poly Water Tank	
1	H102BSTD	6" Rear Door Knife Valve w/Camloc, 3:00 position - Standard	
1	H103STD	Control Cabinet Tool Box - 36w x 24h x 12d	
1	H104STD	Water Pump Cabinet Tool Box - 50w x 30h x 30d	
1	H105STD	Digging Lance Package	
1	H106BSTD	3 - Fixed Jet Nozzles	
1	H107BSTD	4- Rotator Nozzle	
1	H127STD	Grounding cable to tie debris body, sub frame, and chassis	
1	H1025STD	8" Inspection Port W/Ladder	
1	H1027STD	Removable Boom Turret Box	
1	H4011STD	Wireless Remote w/Pump, Vac-Relief - Hand-held	
1	H4012STD	Remote Corded Pendant	
1	H4019ASTD	ISO 46 Hydraulic Oil	
1	H6017STD	Hydraulic Tank Shutoff Valves	
1	H8021STD	8" Vacuum Tube Package w/8" Dig Tube	
1	H8025ASTD	LED Lights, Clearance, Stop, Tail, Turn, Backup	
1	H9028STD	Driver side Toolbox 36W x 54.5H x 30D, Standard	

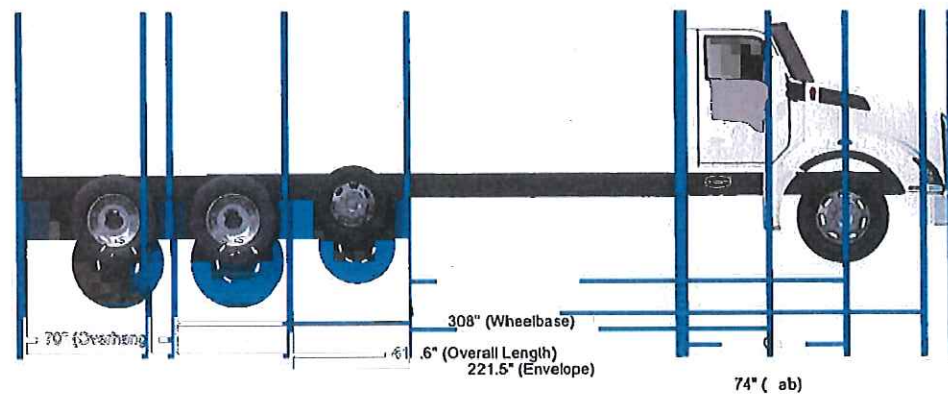
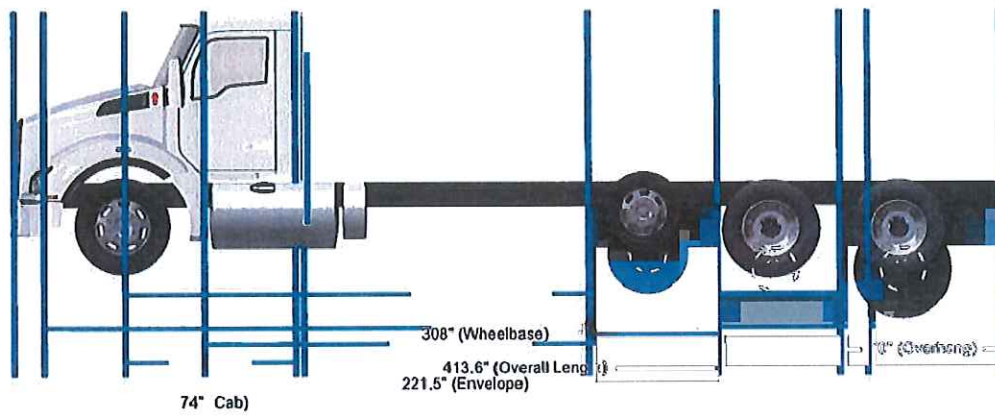
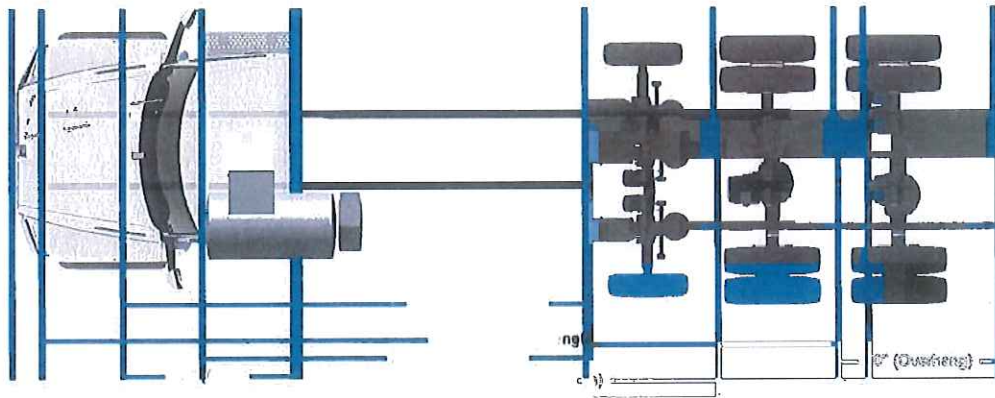
1	H9031STD	Camera System, Rear Only
1	H062A	8" Dig Tube Handle Attachment
1	H1015	Folding Pipe Rack, Curbside
1	H1015B	Folding Pipe Rack, Rear Door
1	H1016B	Billboards Streetside
1	H1022STD	Rear Door Splash Shield
1	H1023	Lube Manifold
1	H1023A	Plastic Lube Chart, included with Lube Manifold
1	H1026	Debris Body Vibrator, Electric
1	H1030	Sludge Pump Off-Load System- 4"
1	H1040	Float Ball Screen, Perforated Plastic
1	H2006	Air Purge
1	H2021B	Water Heater, 400,000 BTU's
1	H4013	Wireless Remote for Body Functions - Hand-held
1	H5010D	Cold Weather Package 3 - Includes PTO Cold Weather Recirculator & Antifreeze Tank
1	H6021	Cyclone Drain Valve
1	H7004C	Front Station Control, Second Operator Station, Spring Retract Hose Reel, Passenger Side
1	H8001L	Rear Directional Control, LED Split Arrow board
1	H8004D	Rear Mounted, LED Beacon Light
1	H8004E	Front Mounted, LED Beacon Light
1	H8002A	Waterproof, Rechargeable, Wireless, Handheld, LED Spot Light w/12V Charger and Plug
1	H8009	Work light, Operators Station
1	H8011	Work lights (2), Boom
1	H8016	Work lights (2), Rear Door
1	H9006STD	Hydro excavating Digging Nozzles & Single Jet Spinner
1	H9021A	Toolbox, Driver Side Behind Tandem, 18w x 48h x 24d
1	H9022	Water Tank Toolbox Driver Side, 48w x 24h x 12d
1	H9025STD	Toolbox, Passenger Side Subframe in lieu of Tool Tray, 104w x 24h x 22d
1	HP112STD	Module Paint, DuPont Imron Elite - Sanded Primer Base
1	LOGO-APPL.	Logos - Applied
1	512459-30	Standard Manual and USB Version - 1 + Dealer
	Chassis:	
1		Kenworth T880 Tandem Axle Chassis w/Pusher, 450 HP Engine, Automatic Transmission

Paint:

Module Paint Match Cab - No

Module Paint Color - Blue

Cab Paint Color - White



Item #1: One New Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or Equivalent.

BID PROPOSAL FORM

Item #1 One New Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or equivalent:

\$ _____ \$ _____
Price in Words Price in Figures

One new Combination Single Engine Hydro Excavation Machine with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or equivalent will be considered that meets the bid specifications. The Water Superintendent in his sole discretion will determine if it satisfies the bid specifications.

Grand Total, Item#1: **plus warranty charges:** One Combination Single Engine Hydro Excavation with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis or equivalent:

\$ _____ \$ _____
Price in Words Price in Figures

DELIVERY: Bidder must state approximate number of days from award that delivery will be made.

Approximate Number of Days for Delivery: _____

DELIVERY USED/NEW VEHICLE: Delivery is expected no later than 120 days from receipt of award. Bidder must deliver vehicle to the Water Department, 1080 Spillway Road Shrub Oak, New York 10588.

The undersigned agrees that he/she on behalf of Bidder has read the bid proposal documents, the instruction to bidders' specifications and agrees to the terms and conditions set forth herein. Bidder understands that bid prices shall include delivery FOB to the address identified in the bid documents and bid price shall be firm for at least 60 days.

Bidder further agrees that this bid is not made jointly or in conjunction, cooperation or collusion with any person, firm, corporation or other legal entity.

Submitted by Authorized Agent:

Bidder agrees no officer, agent or employee of the Owner is directly or indirectly interested in this Bid.

(Print Name & Title)

Signature: _____

Date: _____

Company: _____

Address: _____

City/State/Zip: _____

E-mail address: _____

Telephone: _____

Fax: _____

NON-COLLUSIVE BIDDING CERTIFICATION

Made pursuant to Section 103-d of the General Municipal Law of the State of New York.

By submission of this bid, Bidder and each person signing on behalf of Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his or her knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by Bidder and will not knowingly be disclosed by Bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where (1) (2) and (3) above, have not been complied with; provided, however, that if in any case Bidder cannot make the foregoing certification, Bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

Dated: _____

Bidder: _____

(Legal name of person, firm or corporation)

By: _____
(Signature)

(Please Print Name)

(Title)

State of New York)
County of _____)ss.:

On the _____ day of _____ in the year 20__ before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Notary Public)